VETERANS HEALTH ADMINISTRATION

PATIENT SAFETY INDICATOR REPORT

for

Parent Station Name

FY 2001 - FY 2005

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OVERVIEW

The purpose of this report is to provide you with the Patient Safety Indicator (PSI) rates for your facility and for the VA as a whole. When reviewing your facility's PSI rates, please keep in mind that nearly all VA facilities have favorable rates on some indicators and less favorable rates on others. Our hope is that this report and possible future PSI reports will help your facility identify and prioritize opportunities for improvement, suggest areas for targeted interventions, and assist you in tracking your patient safety outcomes over time.

The report is organized into the following sections:

1. ABOUT THE AHRQ PATIENT SAFETY INDICATORS (PSIs)
2. HOW TO INTERPRET THE AHRQ PSIs
3. DATA TABLES
4. BOXPLOTS
5. INDIVIDUAL DATA PAGES FOR MEDICAL/SURGICAL PSIs
6. INDIVIDUAL DATA PAGES FOR SURGICAL PSIs
7. SUMMARY
8. REFERENCES

1 ABOUT THE AHRQ PATIENT SAFETY INDICATORS (PSIs)

The Patient Safety Indicators (PSIs) were developed by the U.S. Agency for Healthcare Research and Quality (AHRQ) and the University of California-Stanford Evidence-based Practice Center (UCSF-Stanford EPC).[1] The AHRQ PSIs were developed through extensive review of published medical research, plus input from physician panels, statistical testing, and comparison with other methods of identifying events.[2–5] The PSIs use ICD-9-CM codes from routinely collected hospital discharge data to identify potentially preventable safety events. Because the PSIs use data that are already collected and available, they are cost-efficient screening tools for identifying potential patient safety events. They have been used for generating PSI rates using VA data[6] and can be used for comparison among hospitals and for comparison across quarters or years within a particular hospital. Definitions of the 16 PSIs relevant to VA facilities are listed in Tables 1.1 and 1.2 on pages 8-9.

The PSIs are measured as rates, where the numerator is the number of occurrences that are identified as potential adverse events ("potential" because the PSIs are indicators, not direct one-to-one measures, of adverse events), and the denominator is the number of hospitalizations at risk for those particular adverse events. For example, the rate of PSI 12, "Pulmonary Embolism or Deep-Vein Thrombosis (PE/DVT)" is the number of discharges with either of these complications, divided by the total number of surgical discharges.

Further Information on the PSIs

The AHRQ Guide to Patient Safety Indicators includes detailed information on the interpretation of the PSIs, background on how the PSIs were created, a summary of the literature-based evidence underlying the PSIs, average private sector PSI rates based on the State Inpatient Databases, and detailed definitons for each PSI. The AHRQ Guide to the PSIs can be found at:
http://www.qualityindicators.ahrq.gov/downloads/psi/psi_guide_v30a.pdf

The AHRQ PSI Technical Specifications includes detailed definitions of each PSI, including all ICD-9-CM diagnosis codes used by the AHRQ PSI software to identify hospitalizations with PSIs. The AHRQ PSI Technical Specifications can be found at:
http://www.qualityindicators.ahrq.gov/downloads/psi/psi_technical_specs_v30a.pdf

2 HOW TO INTERPRET THE AHRQ PSIs

In general:

- Although an ICD-9-CM code on the discharge record of a particular patient stay (hospitalization) may meet all the criteria necessary for defining a PSI, this does not necessarily mean that the event indicated by the ICD-9-CM code was actually preventable. Only a review of the clinical record and/or an event report has the potential to reveal whether preventable harm to the patient *actually* occurred.

- The PSIs only detect outcomes that occur during a particular hospitalization and that are coded. Therefore, diagnoses made after discharge are not included.

- Variation in clinician documentation of diagnoses and procedures and variation in coding practices across facilities may affect PSI rates.

- While all differences in PSI rates are potentially meaningful and important, facility rates that are significantly higher than the overall VA rate merit particular attention. Tables 2.1-2.5, Tables 3.1-3.11 and Figures 2.1-2.11 in this report indicate when the difference between a facility's PSI rate and the overall VA PSI rate is statistically significant. Note that for statistical reasons, facilities with lower patient volume are less likely to have statistically significant differences relative to overall VA rates due to their smaller PSI denominators (see definitions below).

DEFINITIONS:

PSI rates can be reported as *observed rates*, *observed-to-expected (O/E) ratios*, or *risk-adjusted rates*. Observed rates are the easiest to compute and understand but do not account for patient case-mix. Because of this, we also report O/E ratios and/or risk-adjusted rates, both of which adjust for patient characteristics including age, gender, Diagnosis-Related Groups (DRGs), and all secondary diagnoses (i.e., comorbidities) obtained during hospitalization using a modified version of the AHRQ comorbidities software.[7] The following are definitions of the terms used in the tables and graphs.

- Observed cases (Numerator; Column 1 in Tables 2.1-2.5): The number of cases that meet the definition for this PSI. *EXAMPLE: The numerator for PSI 13 should include all discharges with an ICD-9-CM code for sepsis in any secondary diagnosis field.*

- Denominator (Column 2 in Tables 2.1-2.5): The number of hospitalizations at this parent station at risk for this PSI. *EXAMPLE: The denominator for PSI 13 should include all elective surgical discharges age 18 and older defined by specific DRGs and an ICD-9-CM code for an operating room procedure. Exclude cases with ICD-9-CM codes for sepsis in the principal diagnosis field, with a principal diagnosis of infection or any code for immunocompromised state, cancer, obstetric admissions, and cases with a length of stay of less than 4 days.*

- Observed Rate (Column 3 in Tables 2.1-2.5):
  - This is the observed PSI rate per thousand cases.
  - The observed rate of PSIs is calculated by dividing the observed cases (Column 1) by the denominator (Column 2) and multiplying the result by 1,000.

- Expected Cases (Column 4 in Tables 2.1-2.5):
  - The expected cases is the number of PSIs that would be expected given a hospital's patient case-mix.
  - All other things being equal, certain categories of patients who are more severely ill (e.g., those with diabetes) are more likely to incur diagnoses and procedures that trigger PSIs. For two hospitals with the same denominator size, the hospital with a greater proportion of patients who are more severely ill will have a higher expected number of PSI events, and therefore a higher expected rate of PSI events, independent of its observed number of PSI events.
  - The variables used in the AHRQ software, which generated the number of expected cases, include patient age, gender, DRGs, and comorbidities coded in hospital discharge records.[7]

- Expected Rate of PSI events (Column 5 in Tables 2.1-2.5):
  - The expected rate of PSIs is the expected rate per thousand given a hospital's patient case-mix.

  - The expected rate of PSI events is calculated by dividing the expected cases (Column 4) by the denominator (Column 2) and multiplying the result by 1,000.

- Observed-to-Expected (O/E) Ratio (Column 6 in Tables 2.1-2.5):
  - This is the ratio of a hospital's observed PSI rate to its expected PSI rate. It is calculated by dividing the hospital's observed rate (Column 3) by the hospital's expected rate (Column 5). A lower O/E ratio (less than 1.0) is more desirable.
  - A ratio of 1.0 indicates that the hospital incurred exactly the expected rate of PSI events, given its case-mix.
  - A ratio *greater* than 1.0 indicates that the hospital incurred a *higher*-than-expected rate of PSI events. On the other hand, if O/E = 0.5, then the hospital had 50% fewer PSIs than were expected. For example, if 10 were expected, then 5 actually occurred.
  - Any calculation of expected rates, including the one used here, is based on a "reference population." For the overall reference population, the average observed rate is equal to the average expected rate. It is important to be aware that the AHRQ calculation of expected rates used here is based not on the population of VA hospitals, but on a national sample of non-federal hospitals. Therefore, if a particular VA hospital's O/E rate is greater than 1.0 that does not necessarily mean that this hospital has a higher rate of PSI events than the VA average after case-mix is accounted for. It does mean that this hospital has a higher rate of PSI events than the average U.S. non-federal hospital after case-mix is accounted for.

- Overall VA Observed-to-Expected (O/E) Ratio (Column 7 in Tables 2.1-2.5): This is comparable to column 6; it includes all VA hospitals with sufficient inpatient volume to compute PSIs. The total number of hospitals is 127 for FY 2001; this drops to 119 for FY 2005 due to consolidation of stations.

- Risk-Adjusted Rate
  - This is the risk-adjusted rate of PSIs per thousand patients.

– Risk-adjusted rates account directly for the case-mix of a hospital's cases. The rate takes into account the "risk" of all patients at that facility.
– To calculate the risk-adjusted rate, the observed rates of PSIs were adjusted for age, gender, DRGs and comorbidities using a modified version of the AHRQ comorbidity software.[7]
– Risk adjustment is never perfect. The calculation of risk-adjusted rates using administrative data cannot fully account for the variations in veteran case-mix among VA hospitals; therefore, it is possible that VA hospitals with relatively high-risk patient populations compared to the rest of the VA system have risk-adjusted rates that do not accurately indicate the safety of care at these facilities, despite risk adjustment.

Table 1.1: AHRQ Patient Safety Indicators* Version 3.0

Medical/Surgical PSI Name	Definition
Death in Low Mortality DRGs (PSI 2)	In-hospital deaths per 1,000 patients in DRGs with less than 0.5% mortality. **Excludes** trauma, immuno-compromised, and cancer patients.
Decubitus Ulcer (PSI 3)	Cases of decubitus ulcer per 1,000 discharges with a length of stay of 5 or more days. **Excludes**: patients with paralysis or in MDC 9*** (Diseases/Disorders of Skin, Subcutaneous Tissue, or Breast); obstetrical patients in MDC 14 (Pregnancy, Childbirth, and the Puerperium; and, patients admitted from a long-term care facility.
Failure to Rescue (PSI 4)	Deaths per 1,000 patients having developed specified complications of care during hospitalization. **Excludes**: patients age 75 and older; neonates in MDC 15 (Newborns/Neonates); patients admitted from long-term care facility; and, patients transferred to or from other acute care facility.
Foreign Body Left During Procedure (PSI 5)	Discharges with foreign body accidentally left in during procedure per 1,000 discharges
Iatrogenic Pneumothorax (PSI 6)	Cases of iatrogenic pneumothorax per 1,000 discharges. **Excludes**: trauma; thoracic surgery; lung or pleural biopsy, or cardiac surgery patients; and, obstetrical patients in MDC 14 (Pregnancy, Childbirth, and the Puerperium).
Selected Infections Due to Medical Care (PSI 7)	Cases of secondary ICD-9-CM codes 9993 (Infection after infusion, injection, transfusion, vaccination) or 99662 (Reaction- Internal Device or Graft) per 1,000 discharges. **Excludes** patients with immunocompromised state or cancer.
Accidental Puncture or Laceration (PSI 15)	Cases of technical difficulty (e.g., accidental cut or laceration during procedure) per 1,000 discharges. **Excludes** obstetric admissions.

***See page 10 for information on AHRQ PSIs excluded from this report.
****Cases were identified using ICD-9-CM codes.
*****Major Diagnostic Category (MDC): one of 25 mutually exclusive principal diagnosis categories, each of which corresponds to a single organ system or etiology and in general is associated with a particular medical specialty. MDC's are part of the larger DRG system. Each individual DRG corresponds to one distinct MDC. Source: Guide to Patient Safety Indicators, Department of Health and Human Services, Agency for Healthcare Research and Quality.
http://www.qualityindicators.ahrq.gov AHRQ Pub. No. 03-R203. Revision 3 (January 17, 2005)

Table 1.2: AHRQ Patient Safety Indicators* Version 3.0

Surgical PSI Name	Definition
Postoperative Hemorrhage or Hematoma (PSI 9)	Cases of hematoma or hemorrhage requiring a procedure per 1,000 surgical discharges. **Excludes** obstetrical patients (MDC 14).
Postoperative Physiologic and Metabolic Derangement (PSI 10)	Cases of specified physiological or metabolic derangement (acute renal failure; diabetes with ketoacidosis or hypersmolarity) per 1,000 elective surgical discharges. **Excludes**: patients with principal diagnosis of diabetes and with diagnoses suggesting increased susceptibility to derangement; and, obstetric admissions.
Postoperative Respiratory Failure (PSI 11)	Cases of acute respiratory failure per 1,000 elective surgical discharges. **Excludes**: MDC 4 (Diseases/Disorders of Respiratory System); MDC 5 (Diseasess/Disorders of Circulatory System); Obstetric admissions.
Postoperative Pulmonary Embolism or Deep Vein Thrombosis (PE or DVT) (PSI 12)	Cases of deep vein thrombosis or pulmonary embolism per 1,000 surgical discharges. **Excludes** obstetric patients.
Postoperative Sepsis (PSI 13)	Cases of sepsis (including strep, staph, pneumococcus, flu, e. coli, pseudomonas, other septicemias), per 1,000 elective surgery patients, *with length of stay more than 3 days.* **Excludes**: principal diagnosis of infection; any diagnosis of immunocompromised state or cancer; obstetric admissions.
Postoperative Wound Dehiscence (PSI 14)	Cases of reclosure of postoperative disruption of abdominal wall per 1,000 cases of abdominopelvic surgery. **Excludes** obstetric admissions.

*See page 10 for information on AHRQ PSIs excluded from this report.

3 DATA TABLES

Data Sources

The Patient Safety Indicator data here are for Fiscal Years 2001, 2002, 2003, 2004, and 2005. They are generated from the Patient Treatment File (PTF), an administrative data file derived from VistA data.[8] Our research team acquired the PTF data from the VA's Austin Automation Center.

PSIs Included in This Report

In this report, we focus on the provider (hospital) level PSIs which provide meaningful rates for VA facilities. We exclude PSI 1 (complications of anesthesia), PSI 8 (postoperative hip fracture), PSI 16 (transfusion reaction), PSI 17 (birth trauma - injury to neonate), PSI 18 (obstetric trauma - vaginal delivery with instrument), PSI 19 (obstetric trauma - vaginal delivery without instrument), and PSI 20 (obstetric trauma - cesarean delivery) because these PSIs appear too infrequently in VA discharge reports to allow meaningful comparisons among hospitals or across years. For PSI 2 (death in low mortality DRGs) and PSI 5 (foreign body left during procedure), we are only able to report the observed rate and number of cases because AHRQ has found that risk-adjustment is not necessary for these indicators. If your facility does not perform surgery, there will be no data available for the surgical PSIs (PSI 9 - PSI 14).

Table 2.1: PSI Rates[6] for FY 2001

PSI	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
Medical/Surgical								
Death in Low Mortality DRGs (PSI 2)	0	511	0.0	-	-	-	-	-
Decubitus Ulcer (PSI 3)	44	2061	21.3	18.1	1.2	0.7	26.0 *	16.4
Failure to Rescue (PSI 4)	25	257	97.3	136.4	0.7	1.2	96.7 *	157.0
Foreign Body Left During Procedure (PSI 5)	1	4721	0.2	-	-	-	-	-
Iatrogenic Pneumothorax (PSI 6)	5	4249	1.2	0.5	2.2	1.5	1.3	0.9
Infections Due to Medical Care (PSI 7)	9	3691	2.4	2.7	0.9	0.7	1.9	1.4
Accidental Puncture or Laceration (PSI 15)	25	4717	5.3	3.1	1.7	1.1	6.1 *	4.0
Surgical								
Postop Hemorrhage or Hematoma (PSI 9)	2	1303	1.5	2.7	0.6	1.3	1.2	2.8
Postop Derangements (PSI 10)	0	543	0.0	0.8	0.0	2.0	0.0	1.9
Postop Respiratory Failure (PSI 11)	3	422	7.1	8.2	0.9	1.1	7.6	9.8
Postop PE or DVT (PSI 12)	15	1298	11.6	10.0	1.2	0.9	10.6	8.4
Postop Sepsis (PSI 13)	2	303	6.6	9.7	0.7	0.5	6.8	5.1
Postop Wound Dehiscence (PSI 14)	2	217	9.2	4.4	2.1	1.4	6.1	4.0

[1]Rate per 1000

[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.

[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the overall VA.

[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the VA risk-adjusted rate,** $p < 0.05$**.**

[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

[6]PSI Rates calculated using Version 3.0 of AHRQ PSI Software.

Table 2.2: PSI Rates[6] for FY 2002

PSI	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
Medical/Surgical								
Death in Low Mortality DRGs (PSI 2)	2	599	3.3	-	-	-	-	-
Decubitus Ulcer (PSI 3)	60	2151	27.9	18.7	1.5	0.8	32.9 *	16.7
Failure to Rescue (PSI 4)	36	303	118.8	141.8	0.8	1.1	113.7 *	149.1
Foreign Body Left During Procedure (PSI 5)	1	5065	0.2	-	-	-	-	-
Iatrogenic Pneumothorax (PSI 6)	4	4654	0.9	0.4	1.9	1.7	1.1	1.0
Infections Due to Medical Care (PSI 7)	6	3862	1.6	2.7	0.6	0.7	1.2	1.5
Accidental Puncture or Laceration (PSI 15)	22	5065	4.3	2.9	1.5	1.2	5.4	4.4
Surgical								
Postop Hemorrhage or Hematoma (PSI 9)	2	1246	1.6	2.5	0.6	1.2	1.4	2.6
Postop Derangements (PSI 10)	1	515	1.9	0.9	2.2	2.3	2.2	2.3
Postop Respiratory Failure (PSI 11)	10	416	24.0	9.4	2.5	1.1	22.4 *	9.3
Postop PE or DVT (PSI 12)	16	1235	13.0	9.7	1.3	1.0	12.2	9.0
Postop Sepsis (PSI 13)	0	257	0.0	10.2	0.0	0.6	0.0	5.7
Postop Wound Dehiscence (PSI 14)	3	235	12.8	4.3	3.0	1.7	5.4	4.4

[1]Rate per 1000

[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.

[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the overall VA.

[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the VA risk-adjusted rate,** $p < 0.05$**.**

[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

[6]PSI Rates calculated using Version 3.0 of AHRQ PSI Software.

Table 2.3: PSI Rates[6] for FY 2003

PSI	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
Medical/Surgical								
Death in Low Mortality DRGs (PSI 2)	3	604	5.0	-	-	-	-	-
Decubitus Ulcer (PSI 3)	42	2042	20.6	19.4	1.1	0.7	23.4 *	16.5
Failure to Rescue (PSI 4)	39	321	121.5	131.1	0.9	1.0	125.7	139.0
Foreign Body Left During Procedure (PSI 5)	3	5070	0.6	-	-	-	-	-
Iatrogenic Pneumothorax (PSI 6)	5	4658	1.1	0.4	2.5	2.0	1.5	1.1
Infections Due to Medical Care (PSI 7)	7	3831	1.8	2.7	0.7	0.8	1.4	1.6
Accidental Puncture or Laceration (PSI 15)	45	5067	8.9	2.9	3.1	1.3	11.1 *	4.6
Surgical								
Postop Hemorrhage or Hematoma (PSI 9)	6	1288	4.7	2.5	1.9	1.3	4.1	2.9
Postop Derangements (PSI 10)	1	605	1.7	0.9	1.9	1.7	1.9	1.7
Postop Respiratory Failure (PSI 11)	5	469	10.7	10.4	1.0	1.2	9.1	10.5
Postop PE or DVT (PSI 12)	27	1290	20.9	10.6	2.0	1.0	18.2 *	9.6
Postop Sepsis (PSI 13)	3	287	10.5	9.3	1.1	0.7	11.3	7.0
Postop Wound Dehiscence (PSI 14)	2	245	8.2	4.0	2.0	1.6	11.1	4.6

[1]Rate per 1000

[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.

[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the overall VA.

[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the VA risk-adjusted rate,** $p < 0.05$**.**

[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

[6]PSI Rates calculated using Version 3.0 of AHRQ PSI Software.

Table 2.4: PSI Rates[6] for FY 2004

PSI	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
Medical/Surgical								
Death in Low Mortality DRGs (PSI 2)	1	701	1.4	-	-	-	-	-
Decubitus Ulcer(PSI 3)	60	2110	28.4	20.0	1.4	0.8	31.4 *	16.6
Failure to Rescue (PSI 4)	46	373	123.3	129.0	1.0	1.0	129.6	131.3
Foreign Body Left During Procedure (PSI 5)	1	5403	0.2	-	-	-	-	-
Iatrogenic Pneumothorax (PSI 6)	4	4983	0.8	0.4	2.0	2.0	1.2	1.2
Infections Due to Medical Care (PSI 7)	6	4056	1.5	2.6	0.6	0.8	1.2	1.7
Accidental Puncture or Laceration (PSI 15)	21	5400	3.9	2.6	1.5	1.3	5.5	4.7
Surgical								
Postop Hemorrhage or Hematoma (PSI 9)	5	1300	3.8	2.5	1.6	1.3	3.4	2.9
Postop Derangements (PSI 10)	1	595	1.7	0.9	1.8	1.7	1.8	1.7
Postop Respiratory Failure (PSI 11)	6	462	13.0	10.2	1.3	1.2	11.2	10.9
Postop PE or DVT (PSI 12)	23	1296	17.7	10.2	1.7	1.1	16.0 *	10.3
Postop Sepsis (PSI 13)	1	271	3.7	11.0	0.3	0.6	3.4	6.4
Postop Wound Dehiscence (PSI 14)	2	240	8.3	3.9	2.1	1.7	5.5	4.7

[1]Rate per 1000

[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.

[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the overall VA.

[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the VA risk-adjusted rate,** $p < 0.05$**.**

[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

[6]PSI Rates calculated using Version 3.0 of AHRQ PSI Software.

Table 2.5: PSI Rates[6] for FY 2005

PSI	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
Medical/Surgical								
Death in Low Mortality DRGs (PSI 2)	5	694	7.2	-	-	-	-	-
Decubitus Ulcer (PSI 3)	57	2049	27.8	19.7	1.4	0.8	31.3 *	17.3
Failure to Rescue (PSI 4)	49	418	117.2	138.2	0.8	0.9	115.0	123.5
Foreign Body Left During Procedure (PSI 5)	0	5234	0.0	-	-	-	-	-
Iatrogenic Pneumothorax (PSI 6)	8	4838	1.7	0.4	3.9	2.1	2.3 *	1.2
Infections Due to Medical Care (PSI 7)	8	3981	2.0	2.6	0.8	0.8	1.6	1.6
Accidental Puncture or Laceration (PSI 15)	17	5234	3.2	2.3	1.4	1.3	5.1	4.6
Surgical								
Postop Hemorrhage or Hematoma (PSI 9)	3	1050	2.9	2.7	1.1	1.1	2.3	2.4
Postop Derangements (PSI 10)	2	418	4.8	1.6	3.1	1.8	3.0	1.8
Postop Respiratory Failure (PSI 11)	7	298	23.5	9.8	2.4	1.2	21.0 *	10.6
Postop PE or DVT (PSI 12)	19	1043	18.2	11.1	1.6	1.1	15.0	10.3
Postop Sepsis (PSI 13)	2	206	9.7	9.4	1.0	0.7	10.3	7.4
Postop Wound Dehiscence (PSI 14)	3	191	15.7	4.0	3.9	1.7	5.1	4.6

[1]Rate per 1000

[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.

[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the overall VA.

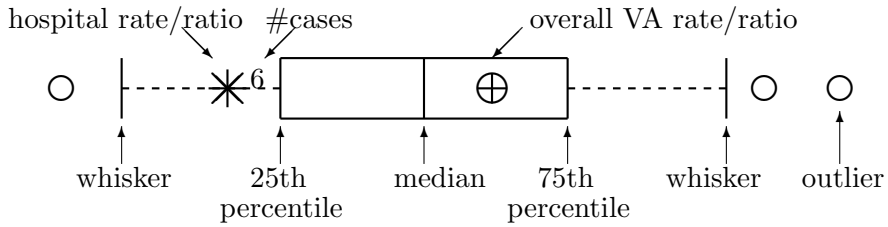
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the VA risk-adjusted rate,** $p < 0.05$**.**

[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

[6]PSI Rates calculated using Version 3.0 of AHRQ PSI Software.

4 BOXPLOTS

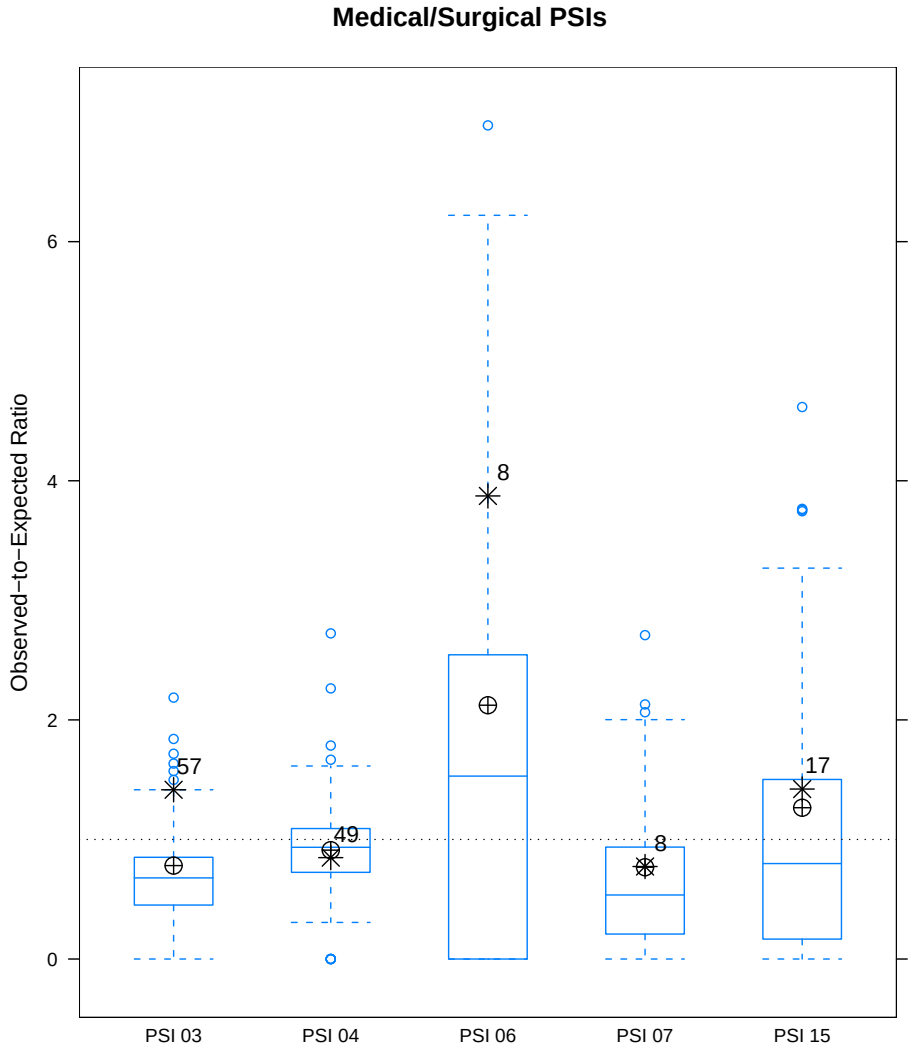
Boxplot Interpretation



The boxplots on the following pages are interpreted as follows:

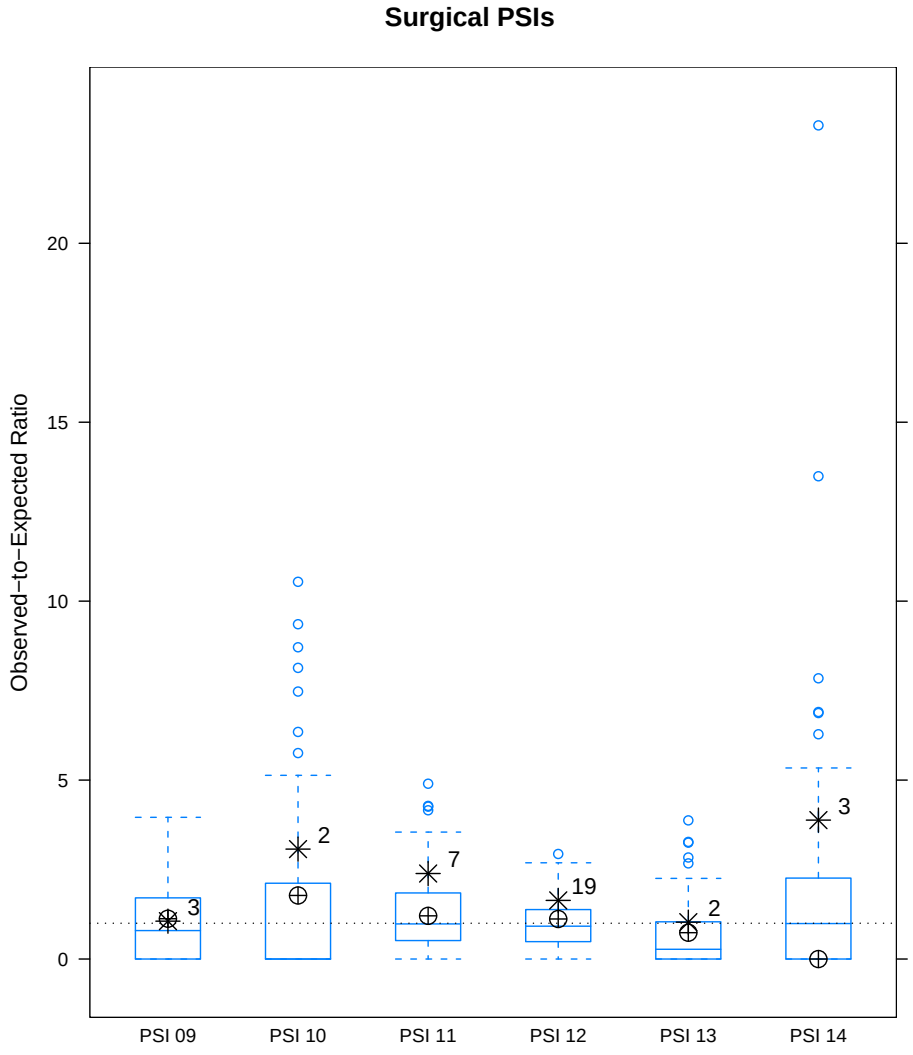
- The data can represent either O/E ratios (e.g., on the grouped boxplot pages in section 5)or risk-adjusted rates (e.g., on the individual data pages in sections 6 and 7) for all acute care hospitals in the VA.
- The box itself contains the middle 50% of the data. The right edge (hinge) of the box indicates the 75th percentile of the data set, and the left hinge indicates the 25th percentile. The range of the middle two quartiles is known as the inter-quartile range.
- The line bisecting the box indicates the median value of the data.
- The ends of the lines extending from the box, or "whiskers", indicate the minimum and maximum data values, unless outliers are present in which case the whiskers extend to a maximum of 1.5 times the inter-quartile range above or below the median.
- The points outside the ends of the whiskers are outliers or suspected outliers.
- The star indicates the risk-adjusted rate (or O/E ratio) for your facility.
- The number next to the star is the number of observed cases for your facility.
- The open circle with the cross inside ($\oplus$) indicates the overall rate (or O/E ratio) for the VA.

Figure 1.1 : Boxplots of O/E Ratios for Medical/Surgical PSIs



The horizontal line is placed where O/E ratio=1.0 and indicates where your facility would be if your PSI rates were exactly as expected based on facility case-mix.

Figure 1.2 : Boxplots of O/E Ratios for Surgical PSIs



The horizontal line is placed where O/E ratio=1.0 and indicates where your facility would be if your PSI rates were exactly as expected based on facility case-mix.

5 INDIVIDUAL DATA PAGES FOR MEDICAL/SURGICAL PSIs

The following pages contain tables and figures for the following PSIs:

- PSI 3: Decubitus Ulcer
- PSI 4: Failure to Rescue
- PSI 6: Iatrogenic Pneumothorax
- PSI 7: Infections Due to Medical Care
- PSI 15: Accidental Puncture or Laceration

NOTE: There may be missing datapoints if administrative data were missing for certain years or if certain PSIs do not apply to the types of services provided at your facility.

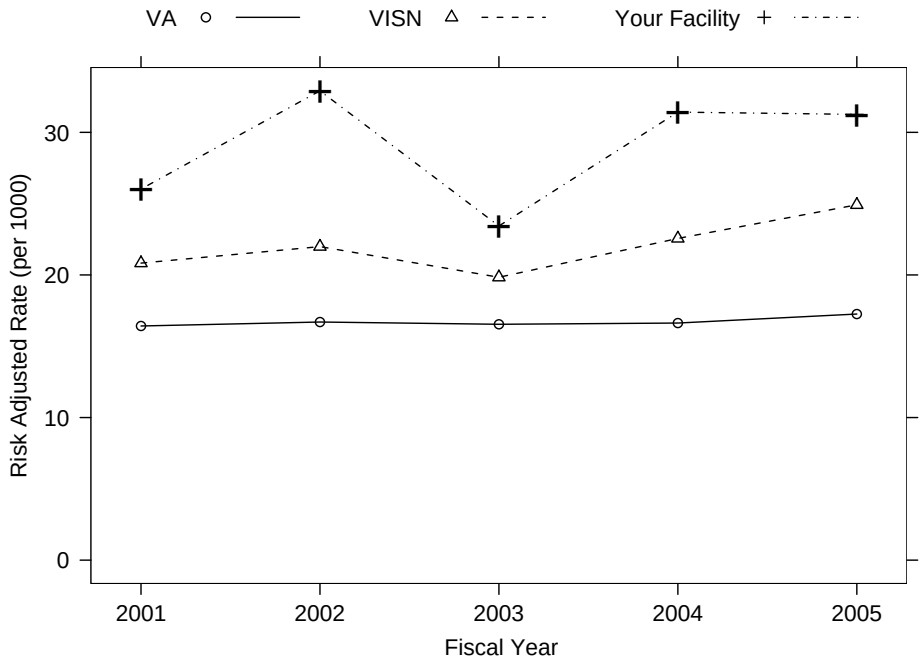
PSI 3: Decubitus Ulcer

Table 3.1: Rates for PSI 3 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	44	2061	21.3	18.1	1.2	0.7	26.0 *	16.4
2002	60	2151	27.9	18.7	1.5	0.8	32.9 *	16.7
2003	42	2042	20.6	19.4	1.1	0.7	23.4 *	16.5
2004	60	2110	28.4	20.0	1.4	0.8	31.4 *	16.6
2005	57	2049	27.8	19.7	1.4	0.8	31.3 *	17.3

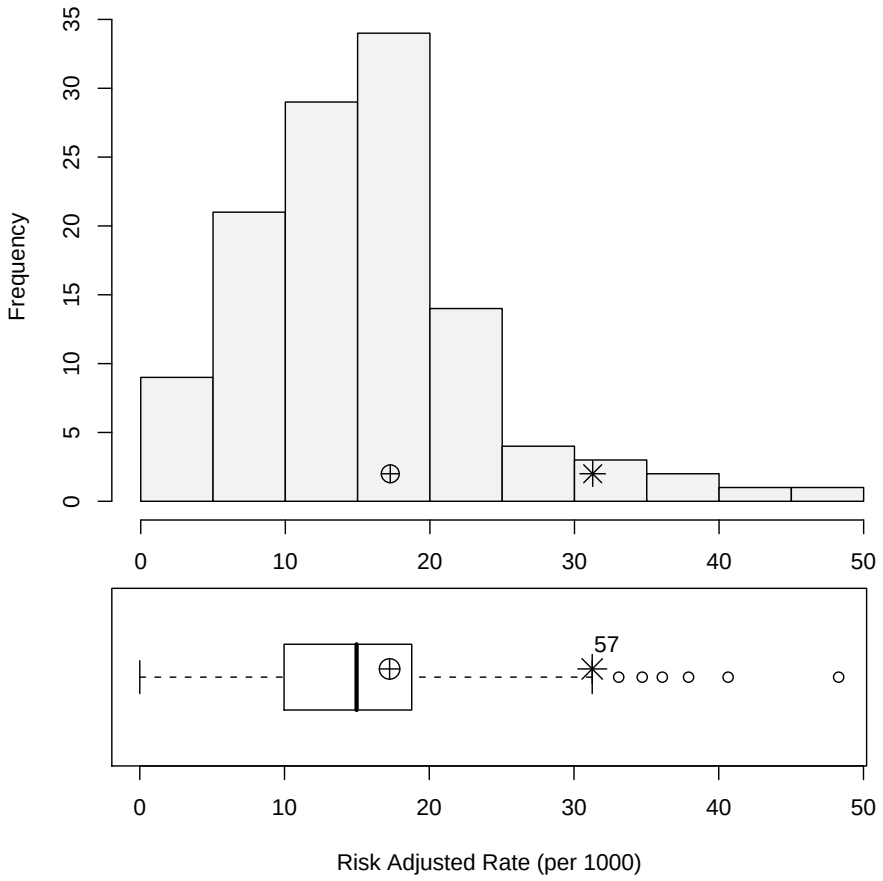
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.1: Risk-Adjusted Rates for PSI 3 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.1: Distribution of Risk-Adjusted Rates for PSI 3 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

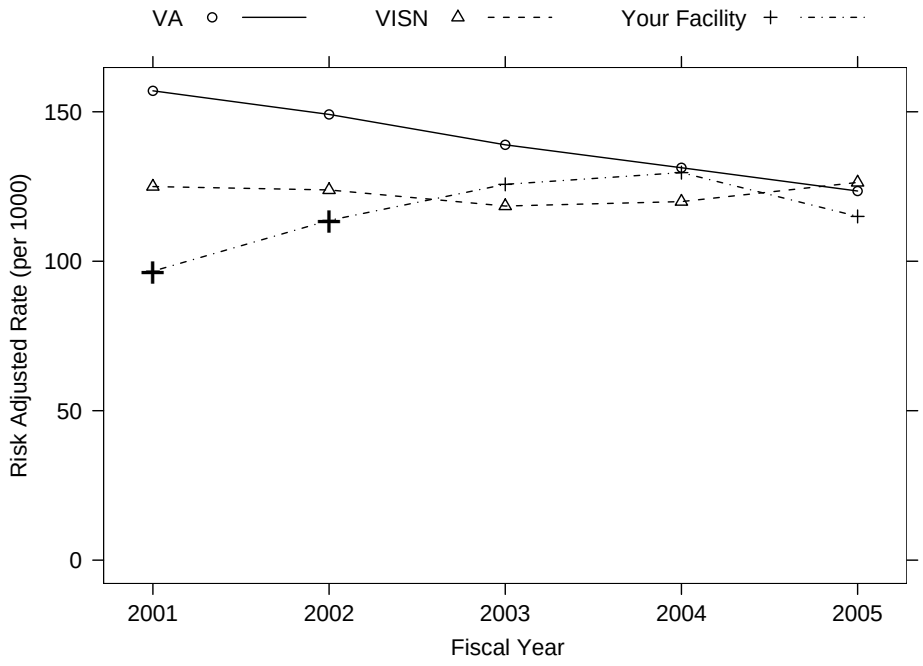
PSI 4: Failure to Rescue

Table 3.2: Rates for PSI 4 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	25	257	97.3	136.4	0.7	1.2	96.7 *	157.0
2002	36	303	118.8	141.8	0.8	1.1	113.7 *	149.1
2003	39	321	121.5	131.1	0.9	1.0	125.7	139.0
2004	46	373	123.3	129.0	1.0	1.0	129.6	131.3
2005	49	418	117.2	138.2	0.8	0.9	115.0	123.5

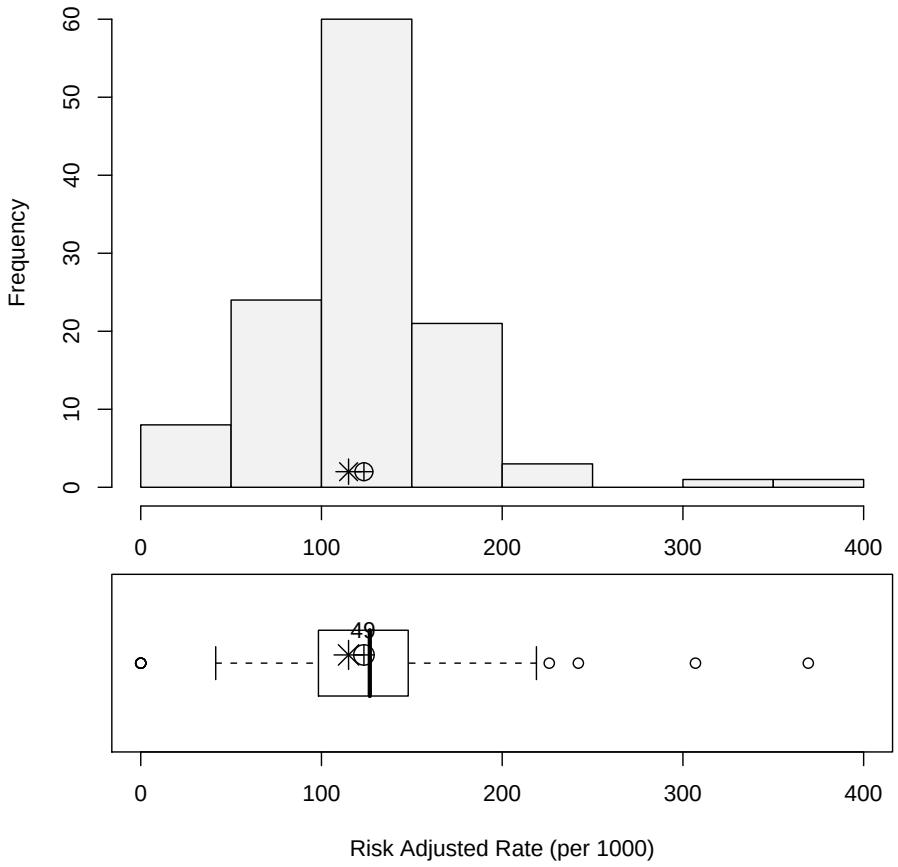
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.2: Risk-Adjusted Rates for PSI 4 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.2: Distribution of Risk-Adjusted Rates for PSI 4 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

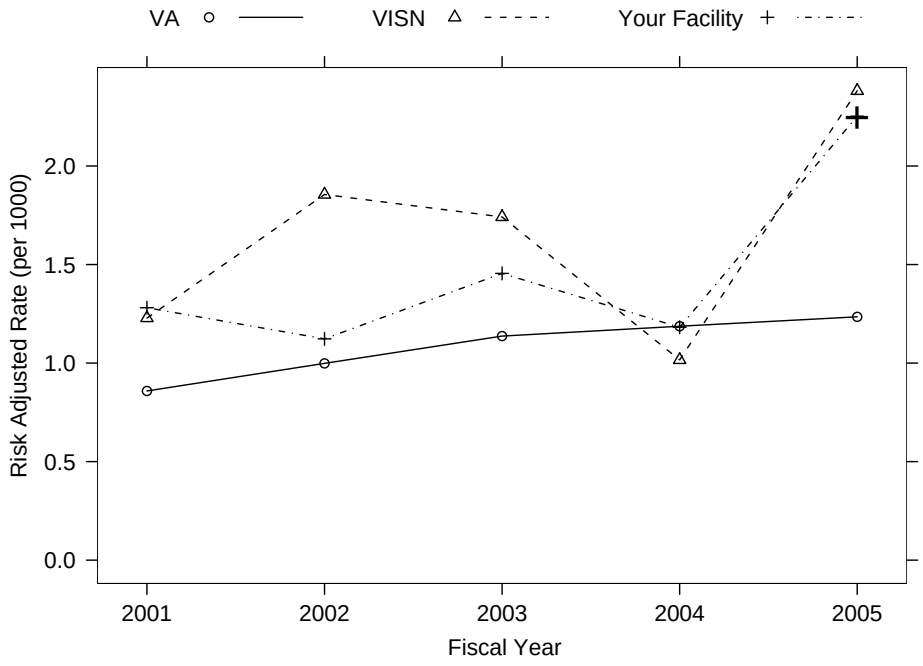
PSI 6: Iatrogenic Pneumothorax

Table 3.3: Rates for PSI 6 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	5	4249	1.2	0.5	2.2	1.5	1.3	0.9
2002	4	4654	0.9	0.4	1.9	1.7	1.1	1.0
2003	5	4658	1.1	0.4	2.5	2.0	1.5	1.1
2004	4	4983	0.8	0.4	2.0	2.0	1.2	1.2
2005	8	4838	1.7	0.4	3.9	2.1	2.3 *	1.2

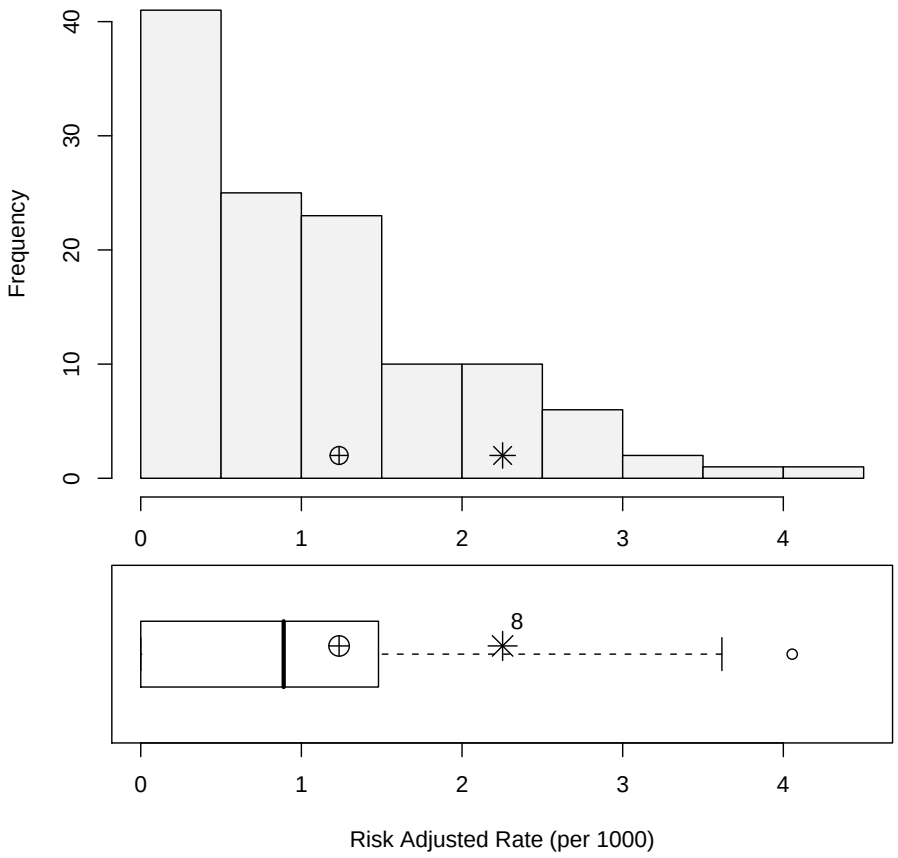
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.3: Risk-Adjusted Rates for PSI 6 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.3: Distribution of Risk-Adjusted Rates for PSI 6 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

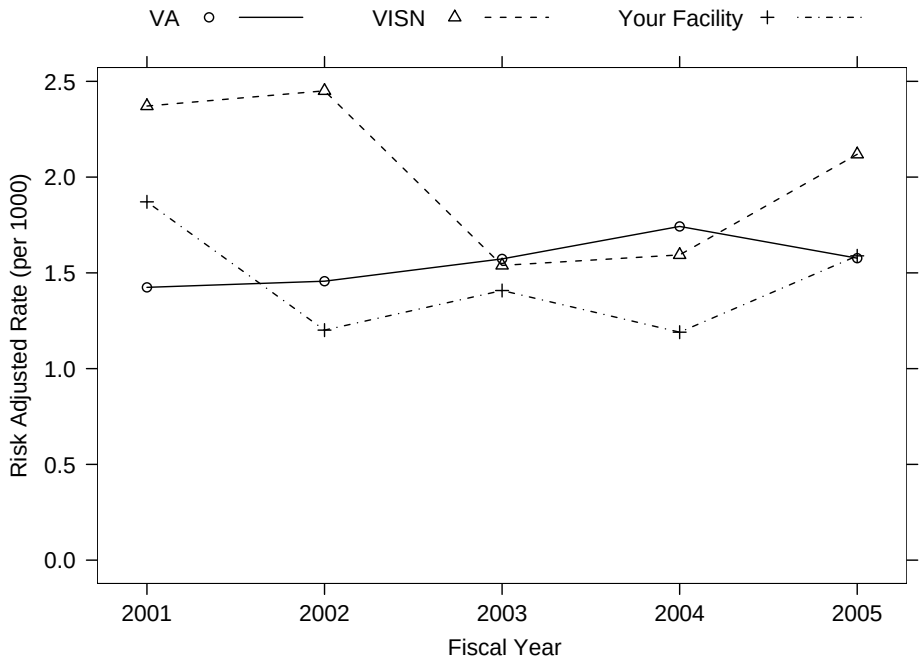
PSI 7: Selected Infections Due to Medical Care

Table 3.4: Rates for PSI 7 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	9	3691	2.4	2.7	0.9	0.7	1.9	1.4
2002	6	3862	1.6	2.7	0.6	0.7	1.2	1.5
2003	7	3831	1.8	2.7	0.7	0.8	1.4	1.6
2004	6	4056	1.5	2.6	0.6	0.8	1.2	1.7
2005	8	3981	2.0	2.6	0.8	0.8	1.6	1.6

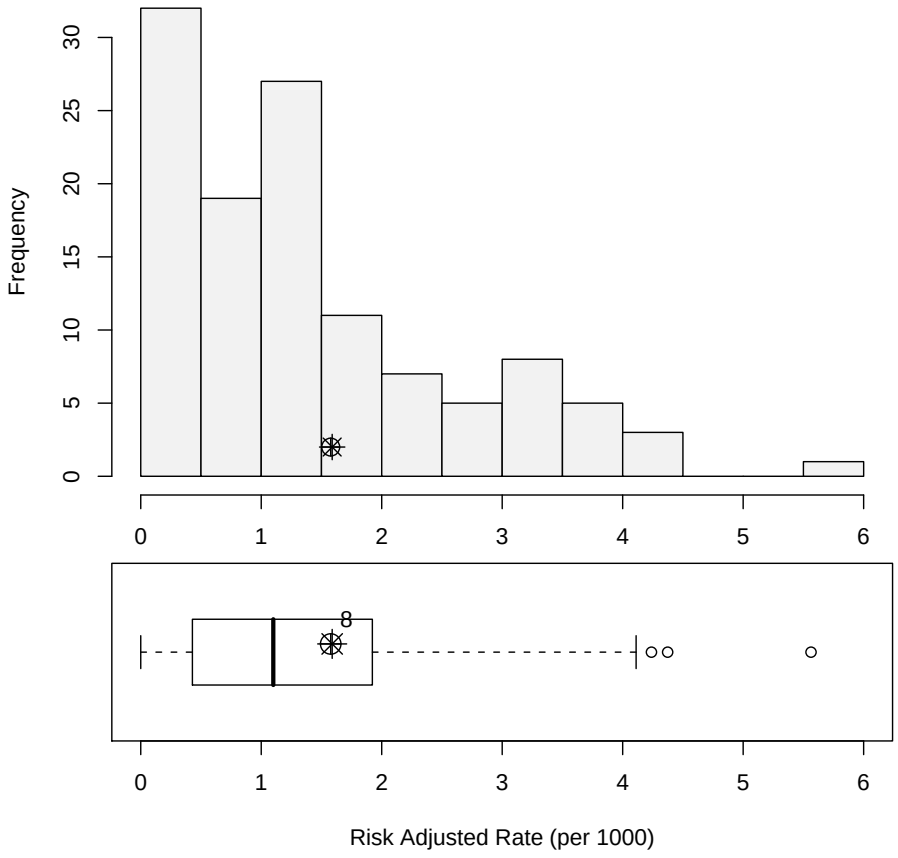
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.4: Risk-Adjusted Rates for PSI 7 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.4: Distribution of Risk-Adjusted Rates for PSI 7 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

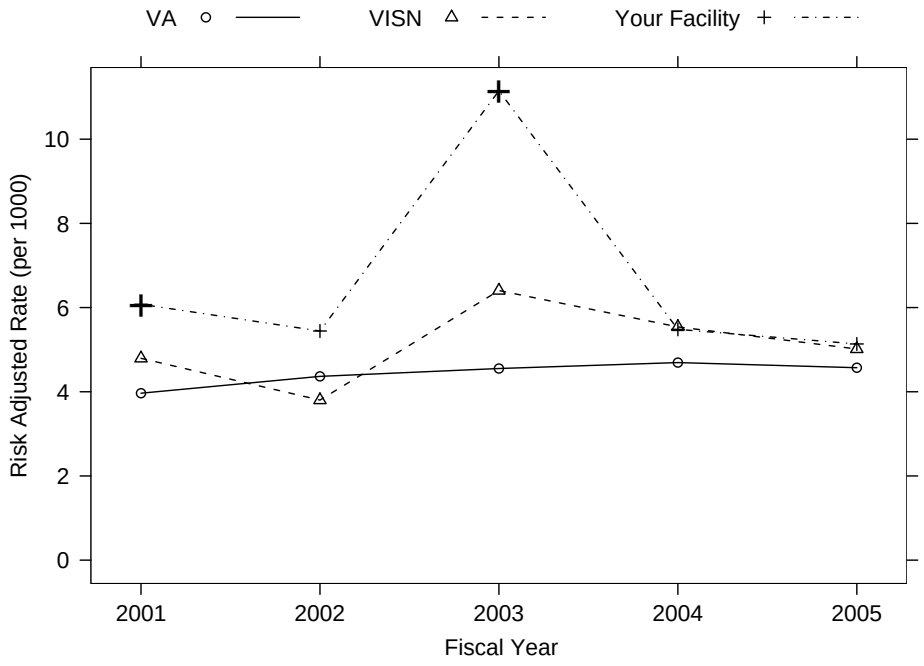
PSI 15: Accidental Puncture or Laceration

Table 3.5: Rates for PSI 15 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	25	4717	5.3	3.1	1.7	1.1	6.1 *	4.0
2002	22	5065	4.3	2.9	1.5	1.2	5.4	4.4
2003	45	5067	8.9	2.9	3.1	1.3	11.1 *	4.6
2004	21	5400	3.9	2.6	1.5	1.3	5.5	4.7
2005	17	5234	3.2	2.3	1.4	1.3	5.1	4.6

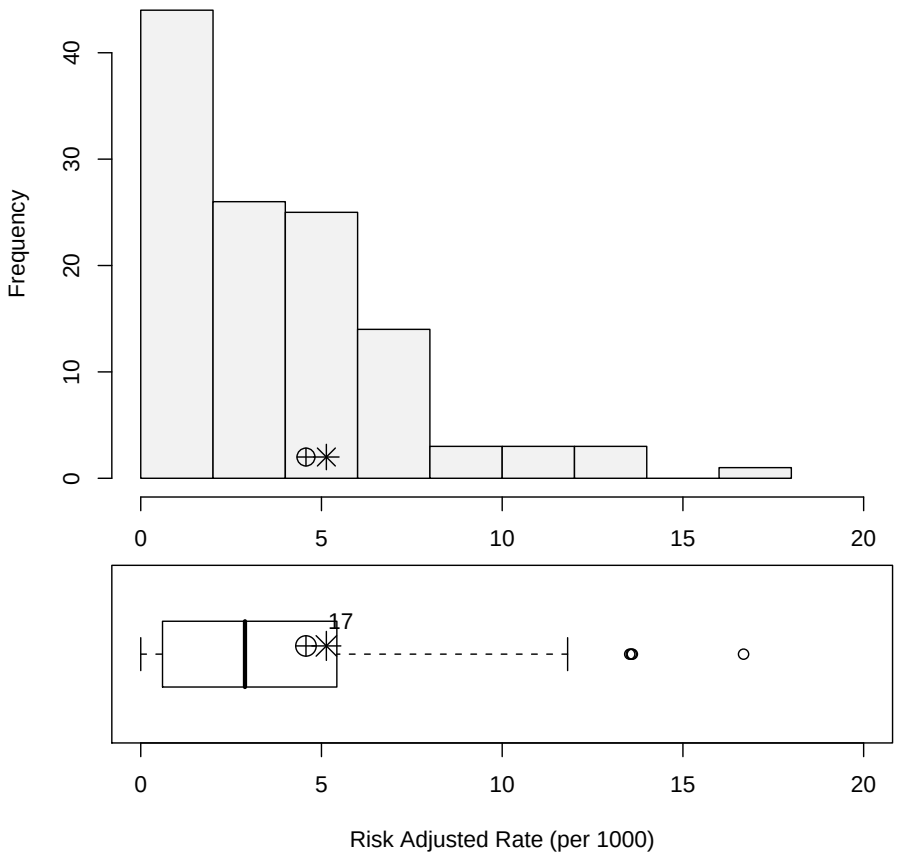
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.5: Risk-Adjusted Rates for PSI 15 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.5: Distribution of Risk-Adjusted Rates for PSI 15 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

6 INDIVIDUAL DATA PAGES FOR SURGICAL PSIs

The following pages contain tables and figures for the following PSIs:

- PSI 9: Postoperative Hemorrhage or Hematoma
- PSI 10: Postoperative Physiologic and Metabolic Derangements
- PSI 11: Postoperative Respiratory Failure
- PSI 12: Postoperative Pulmonary Embolism or Deep Vein Thrombosis
- PSI 13: Postoperative Sepsis
- PSI 14: Postoperative Wound Dehiscence

NOTE: There may be missing datapoints if administrative data were missing for certain years or if certain PSIs do not apply to the types of services provided at your facility.

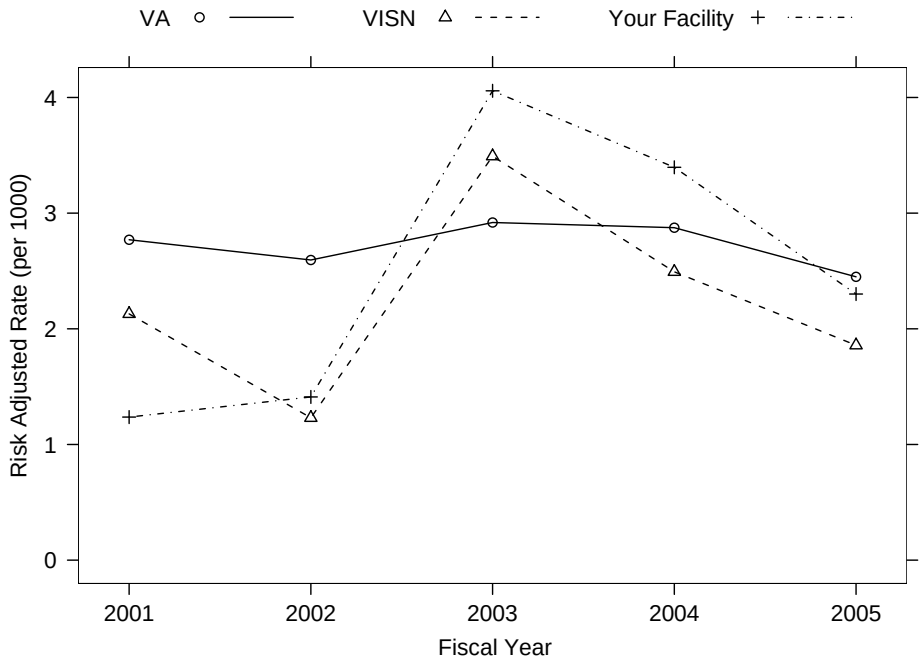
PSI 9: Postoperative Hemorrhage or Hematoma

Table 3.6: Rates for PSI 9 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	2	1303	1.5	2.7	0.6	1.3	1.2	2.8
2002	2	1246	1.6	2.5	0.6	1.2	1.4	2.6
2003	6	1288	4.7	2.5	1.9	1.3	4.1	2.9
2004	5	1300	3.8	2.5	1.6	1.3	3.4	2.9
2005	3	1050	2.9	2.7	1.1	1.1	2.3	2.4

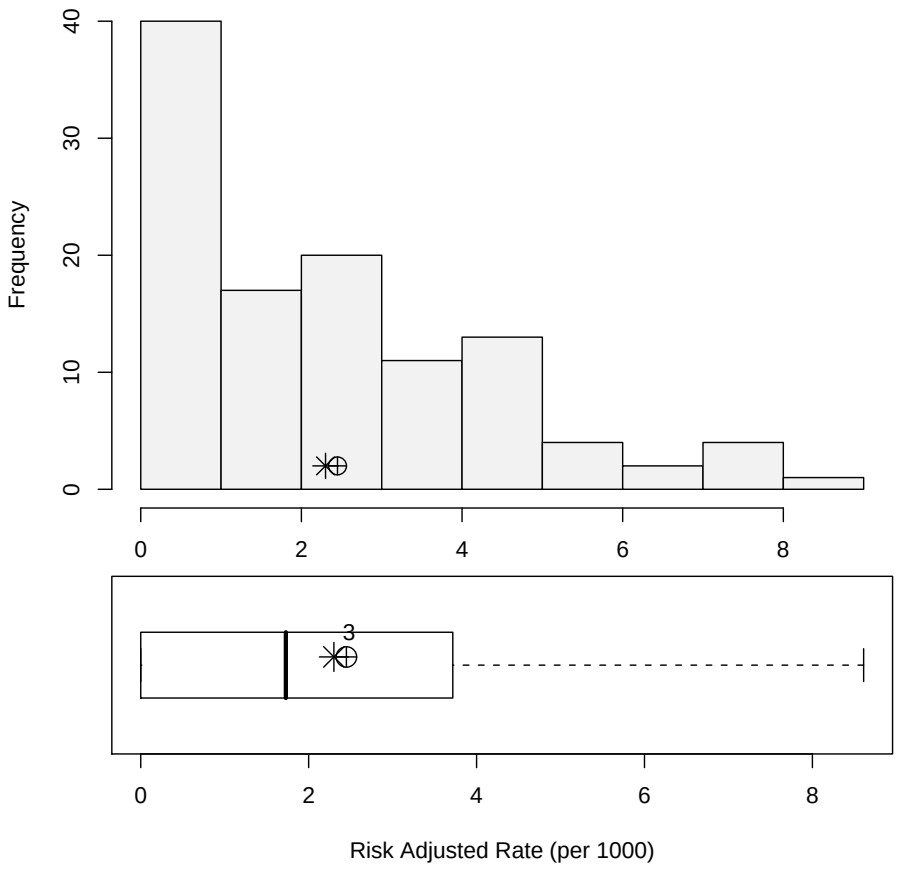
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.6: Risk-Adjusted Rates for PSI 9 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.6: Distribution of Risk-Adjusted Rates for PSI 9 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

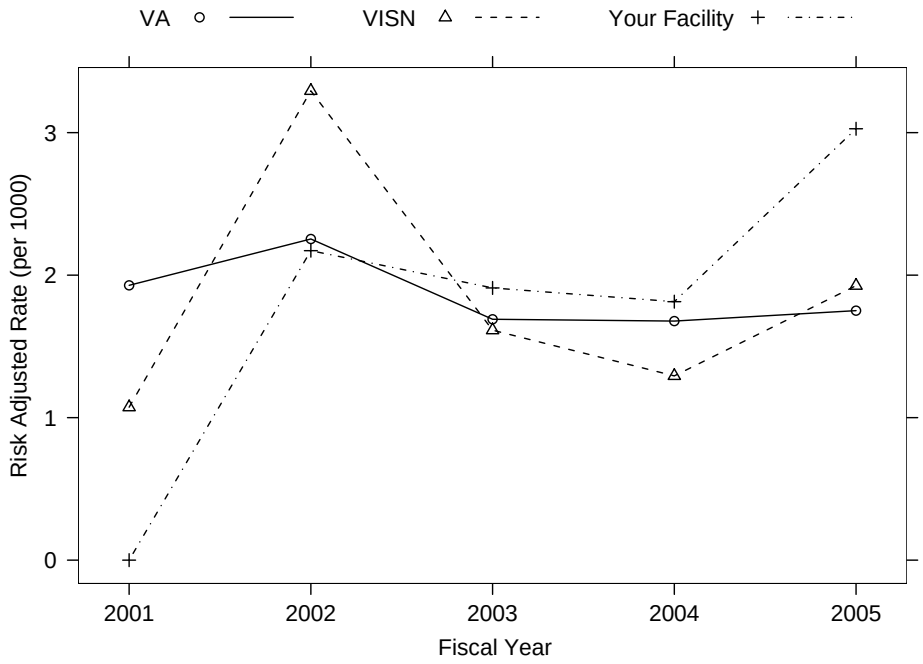
PSI 10: Postoperative Physiologic and Metabolic Derangements

Table 3.7: Rates for PSI 10 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	0	543	0.0	0.8	0.0	2.0	0.0	1.9
2002	1	515	1.9	0.9	2.2	2.3	2.2	2.3
2003	1	605	1.7	0.9	1.9	1.7	1.9	1.7
2004	1	595	1.7	0.9	1.8	1.7	1.8	1.7
2005	2	418	4.8	1.6	3.1	1.8	3.0	1.8

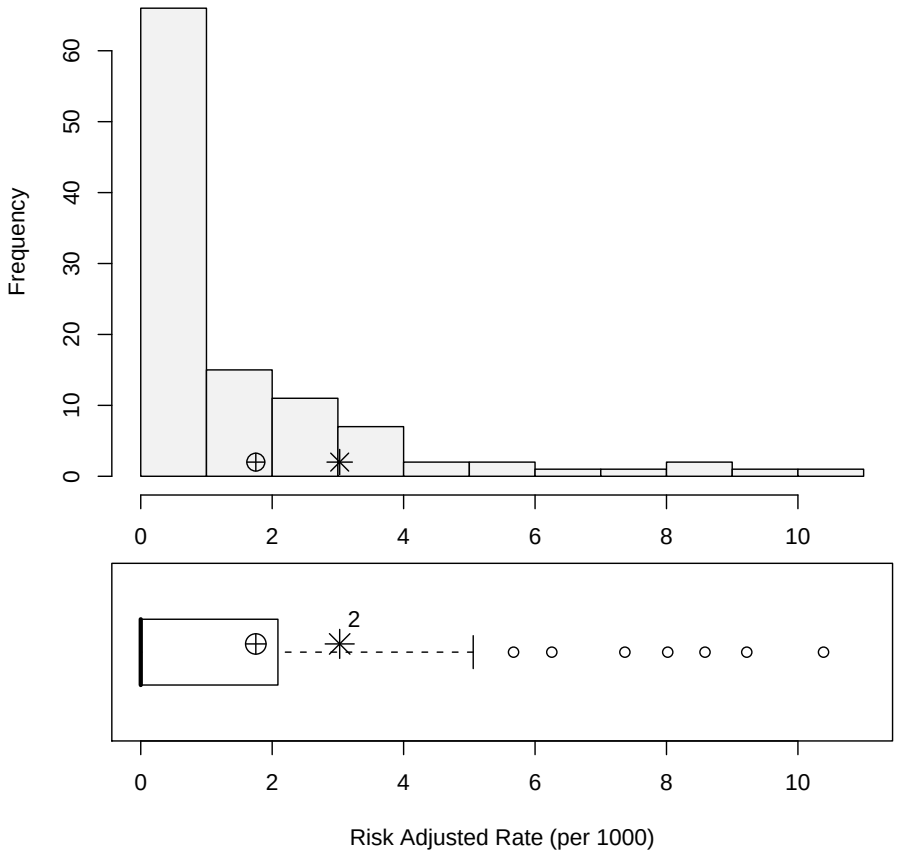
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.7: Risk-Adjusted Rates for PSI 10 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.7: Distribution of Risk-Adjusted Rates for PSI 10 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

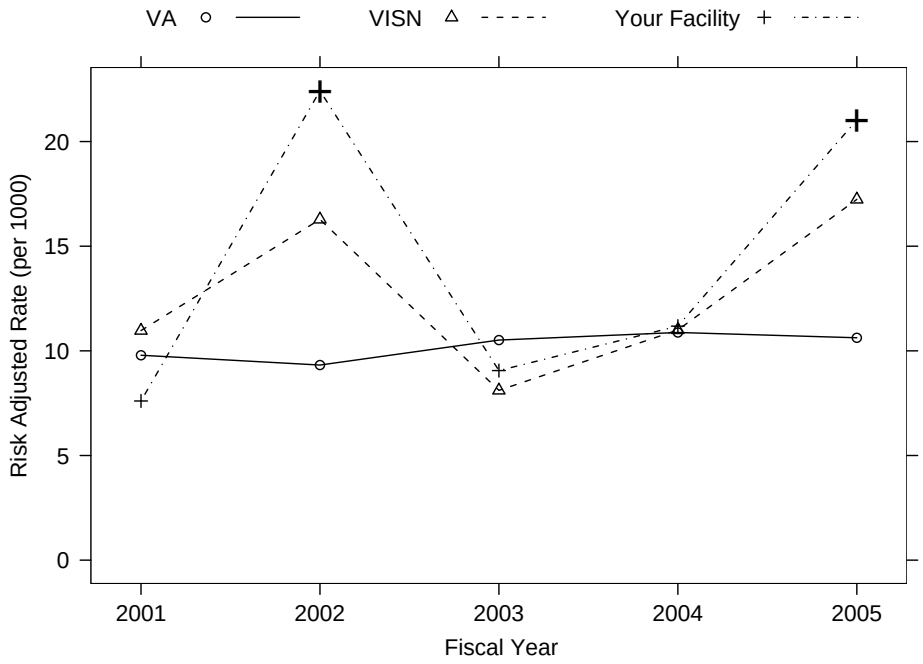
PSI 11: Postoperative Respiratory Failure

Table 3.8: Rates for PSI 11 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	3	422	7.1	8.2	0.9	1.1	7.6	9.8
2002	10	416	24.0	9.4	2.5	1.1	22.4 *	9.3
2003	5	469	10.7	10.4	1.0	1.2	9.1	10.5
2004	6	462	13.0	10.2	1.3	1.2	11.2	10.9
2005	7	298	23.5	9.8	2.4	1.2	21.0 *	10.6

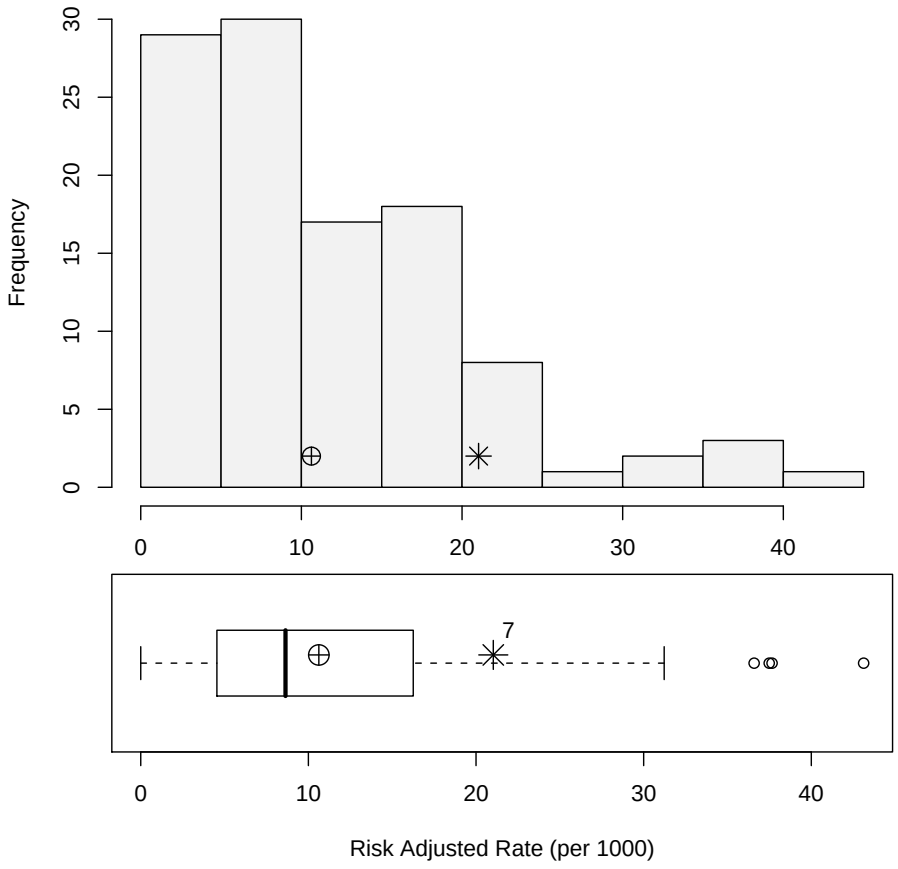
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.8: Risk-Adjusted Rates for PSI 11 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.8: Distribution of Risk-Adjusted Rates for PSI 11 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

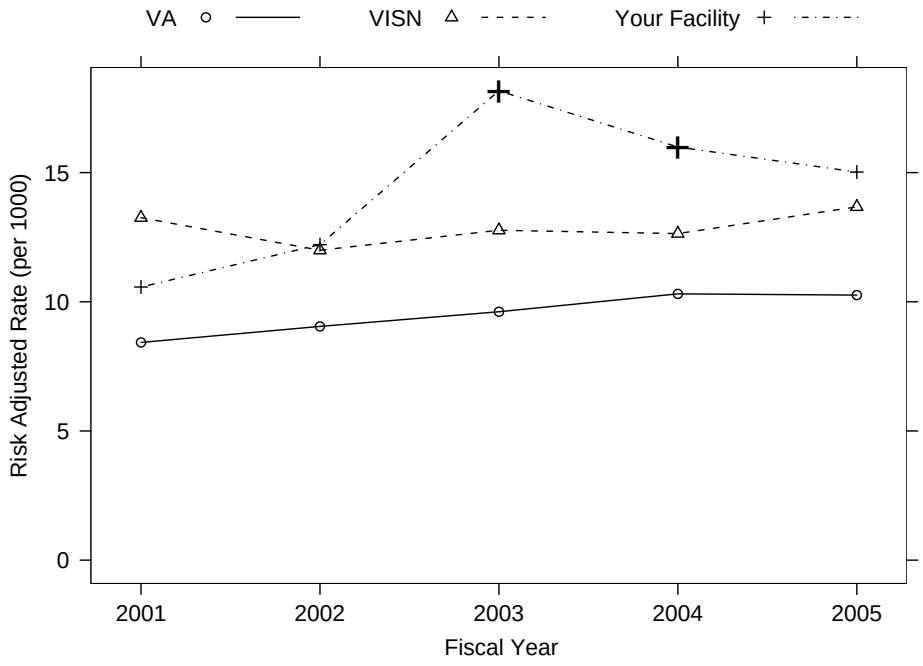
PSI 12: Postoperative Pulmonary Embolism or DVT

Table 3.9: Rates for PSI 12 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	15	1298	11.6	10.0	1.2	0.9	10.6	8.4
2002	16	1235	13.0	9.7	1.3	1.0	12.2	9.0
2003	27	1290	20.9	10.6	2.0	1.0	18.2 *	9.6
2004	23	1296	17.7	10.2	1.7	1.1	16.0 *	10.3
2005	19	1043	18.2	11.1	1.6	1.1	15.0	10.3

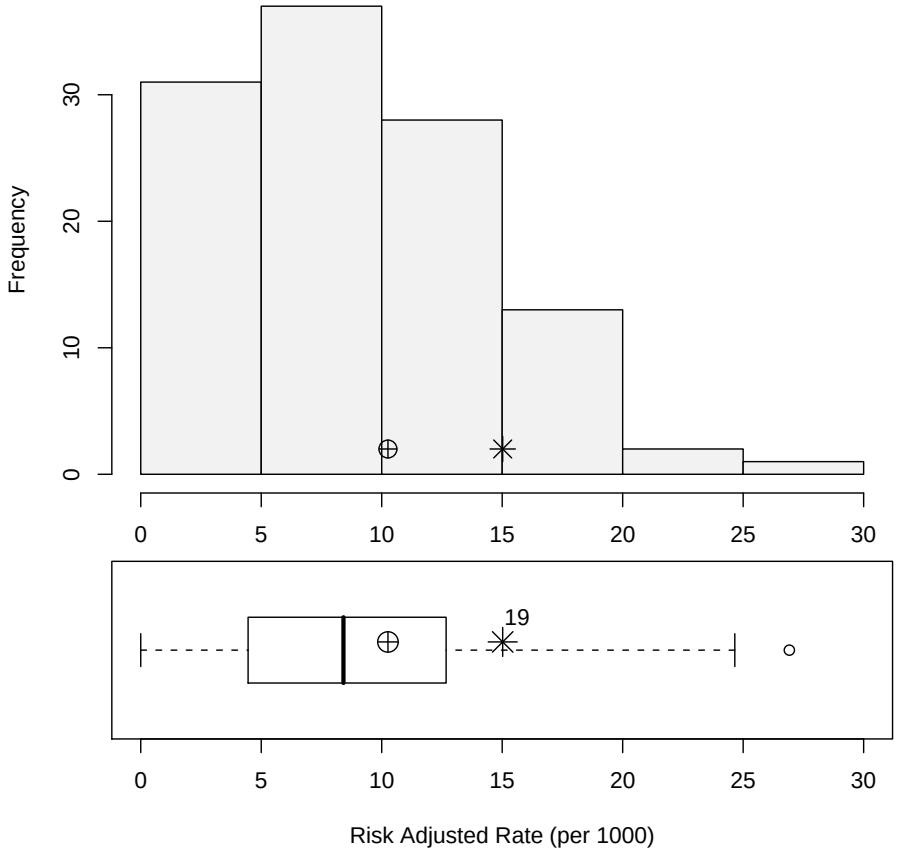
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.9: Risk-Adjusted Rates for PSI 12 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.9: Distribution of Risk-Adjusted Rates for PSI 12 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

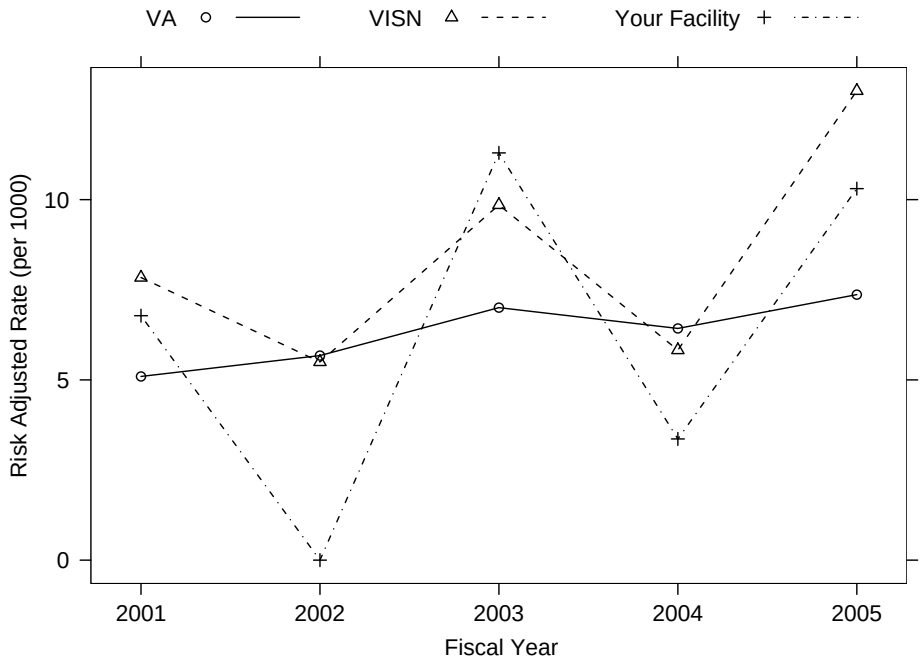
PSI 13: Postoperative Sepsis

Table 3.10: Rates for PSI 13 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	2	303	6.6	9.7	0.7	0.5	6.8	5.1
2002	0	257	0.0	10.2	0.0	0.6	0.0	5.7
2003	3	287	10.5	9.3	1.1	0.7	11.3	7.0
2004	1	271	3.7	11.0	0.3	0.6	3.4	6.4
2005	2	206	9.7	9.4	1.0	0.7	10.3	7.4

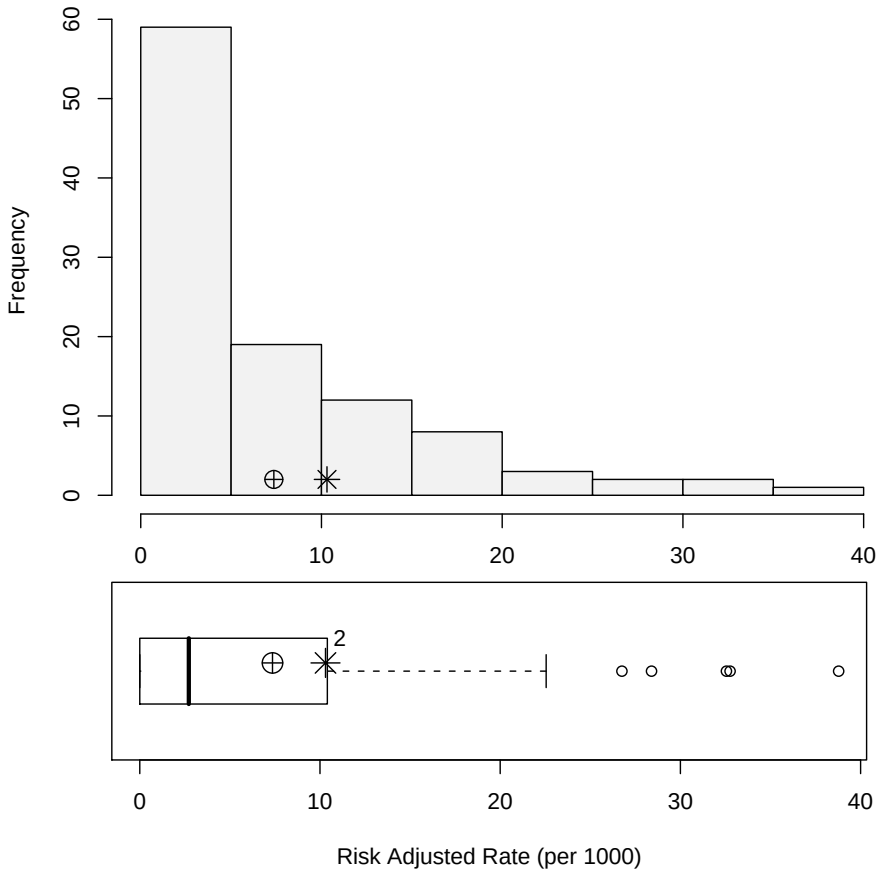
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.10: Risk-Adjusted Rates for PSI 13 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.10: Distribution of Risk-Adjusted Rates for PSI 13 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

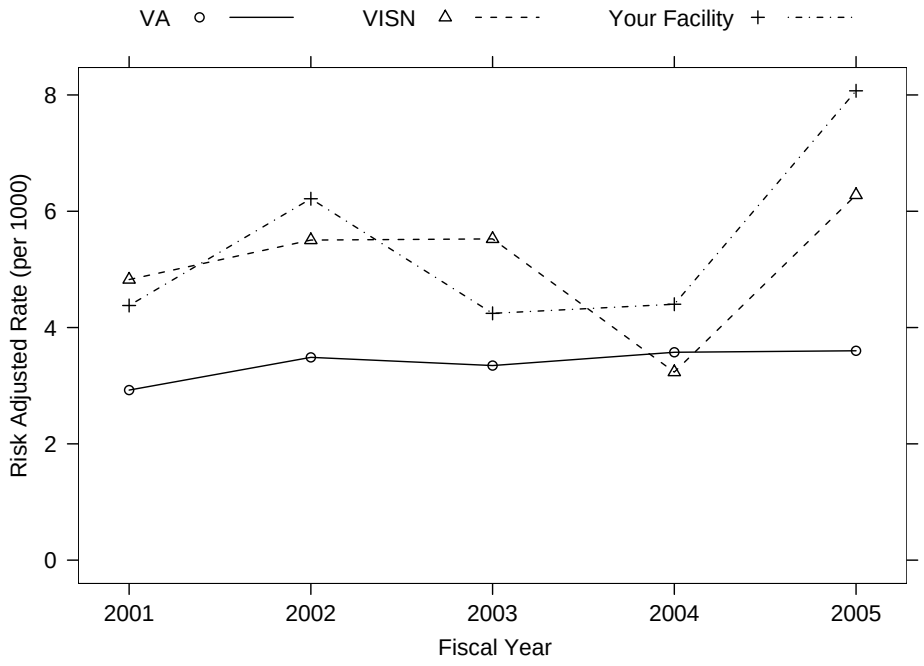
PSI 14: Postoperative Wound Dehiscence

Table 3.11: Rates for PSI 14 (FY2001 - FY2005)

Fiscal Year	Observed Cases	Denominator	Observed Rate[1]	Expected Rate[1]	Facility O/E[2]	VA O/E[3]	Facility RA Rate[1,4]	VA RA Rate[1,5]
2001	2	217	9.2	4.4	2.1	1.4	4.4	2.9
2002	3	235	12.8	4.3	3.0	1.7	6.2	3.5
2003	2	245	8.2	4.0	2.0	1.6	4.2	3.3
2004	2	240	8.3	3.9	2.1	1.7	4.4	3.6
2005	3	191	15.7	4.0	3.9	1.7	8.1	3.6

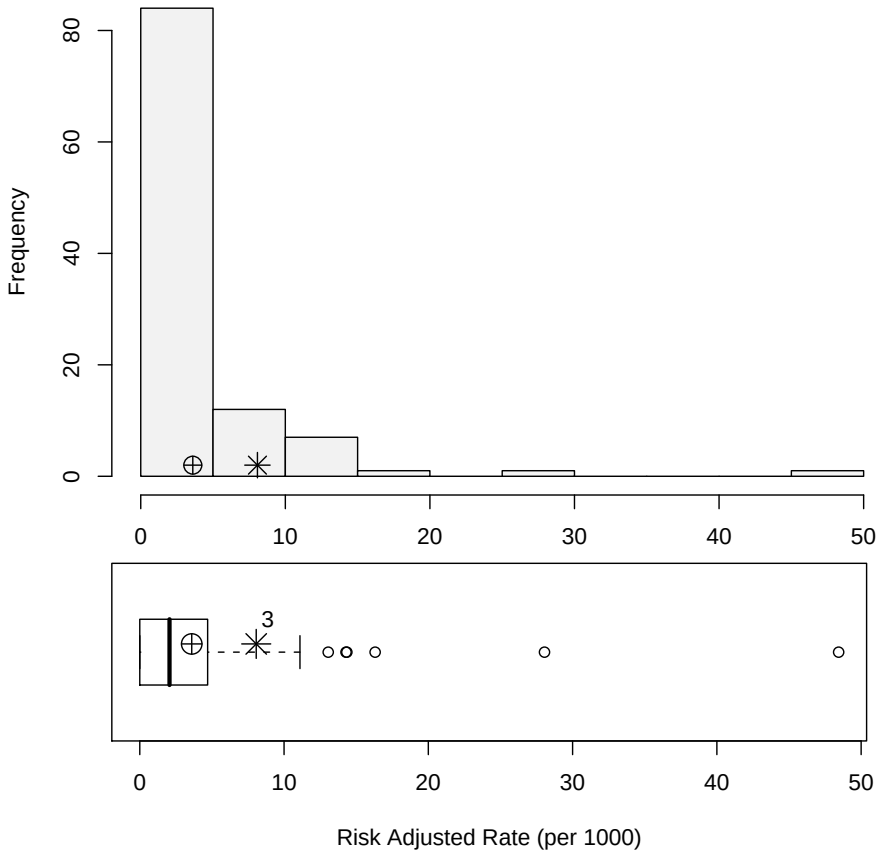
[1]Rate per 1000
[2]Facility O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for your facility.
[3]VA O/E = Observed-to-Expected (O/E) Ratio (i.e., Observed Rate/Expected Rate) for the VA.
[4]Facility Risk-Adjusted Rate = The hospital's observed rate risk-adjusted to account for facility case-mix. **An asterisk (*) next to the rate indicates that this rate is significantly different from the overall VA risk-adjusted rate,** $p < 0.05$**.**
[5]VA Risk-Adjusted Rate = The overall VA rate, adjusted for VA case-mix.

Figure 2.11: Risk-Adjusted Rates for PSI 14 (FY2001 - FY2005)



A bold cross (+) indicates that your facility's rate was significantly different from the VA rate for that year.

Figure 3.11: Distribution of Risk-Adjusted Rates for PSI 14 Across All VA Acute Care Hospitals (FY2005)



This figure shows the distribution of the rates for this PSI across all acute care VA hospitals. The star shows where your facility's risk-adjusted rate falls on this distribution. The number next to the star is the number of observed cases for your facility in FY2005.

The open circle with a cross (⊕) shows the mean VA rate.

7 SUMMARY

This report was designed to enable VA facilities to view their PSI rates, both as trends over a five-year period (Tables 3.1-3.11 and Figures 2.1-2.11) and in comparison with their VISN and the overall VA (all tables and figures.) The trend information in the five-year tables and graphs can help facilities identify any PSIs with consistent upward (unfavorable)or downward (favorable) trends and PSIs that have remained consistently above (less favorable than) or below (more favorable than) VA and VISN averages. The comparison with VISN and VA averages is made more meaningful by the risk-adjustment that is used in calculating both the expected rates (and O/E ratios, etc.) and risk-adjusted rates. Comparison with VA averages is also aided by the information on distribution of PSI rates across all VA facilities in the boxplots and histogram (Figures 1.1-1.2 and 3.1-3.11). In addition to noting which PSI rates are higher than overall VA rates to the point of statistical significance, a facility can look at the proportion of the area of the boxplot box that is less than (below, in Figures 1.1 and 1.2; to the left of, in Figures 3.1-3.11) the facility's rate as an indication of how many VA facilities have lower (more favorable) risk-adjusted rates for each indicator.

The tables, figures, and text in this report tell the quantitative story of a facility's PSI rates; what remains is the task of deciding what the PSI rates mean in the context of your facility. The interpretation of a given PSI rate will differ across facilities. Because these rates are indicators and not measures, they should not be interpreted as definitive performance measures. Instead, this PSI data should be used in conjunction with your facility's other quality and safety data.[9]

Beginning in August 2006, shortly after the distribution of this report, those who work with patient safety at VA facilities will have the opportunity to learn more about how to interpret PSIs, how other facilities in the VA and the private sector are working with them, and how to address some of the patient safety issues represented by specific PSIs. Along with the production and distribution of this report, VA HSR&D has funded a series of patient safety cyberseminars (simultaneous conference calls and internet presentations). **The first cyberseminar, scheduled for Thursday, August 24, 2006, at 12:00 noon EDT, will walk through sections of this report and cover data sources, interpretation of the PSIs, and other PSI-related questions raised by users of the reports at VA facilities.** Details about the cyberseminars will be emailed to facility executives and quality and safety officers.

8 REFERENCES

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http://www.hcup-us.ahrq.gov/toolssoftware/comorbidity/comorbidity.jsp

8. **For a detailed discussion of using the PTF to generate PSIs, see:** Rivard, P.E., A.R. Elwy, S. Loveland, S. Zhao, A. Elixhauser, P.S. Romano, and A.K. Rosen. "Applying Patient Safety Indicators Across Healthcare Systems: Achieving Data Comparability" in *Advances in Patient Safety: From Research to Implementation*, a research compendium published jointly by the Agency for Healthcare Research and Quality and Department of Defense, May 2005, Volume 2:7-25. http://www.ahrq.gov/qual/advances/

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